

SAFETY COMMISSION AGENDA STATEMENT

Item 9
Meeting Date: 5/08/08

ITEM TITLE: Report on Speed Limit Revision for Hidden Vista Drive between East H Street and Terra Nova Drive.

SUBMITTED BY: Jim Newton, Senior Civil Engineer

Staff completed an Engineering and Traffic survey for a segment of Hidden Vista Drive in accordance with the California Vehicle Code which mandates that a speed survey be completed and updated every seven years for each street with a posted speed limit within the City. Based on the results of this speed survey, staff has determined that the speed limit on Hidden Vista Drive between East H Street and Smoky Circle should be increased from 25 mph to 30 mph. Staff also determined that the speed limit on Hidden Vista Drive between Smoky Circle and Terra Nova Drive should retain its existing 25 mph speed limit.

RECOMMENDATION: Concur with staff and recommend the Chula Vista City Council increase the existing speed limit on Hidden Vista Drive between East H Street and Smoky Circle from 25 mph to 30 mph, and that Schedule X of the register maintained in the office of the City Engineer be revised to include this revised speed limit.

DISCUSSION:

City Staff completed a speed survey along a segment of Hidden Vista Drive between East H Street and Terra Nova Drive in accordance with the California Vehicle Code which indicates that the posting of speed limits be determined by an Engineering and Traffic Survey at least once every seven years. As described in the California Vehicle Code, the survey shall include:

- (1) Prevailing speeds as determined by traffic engineering measurements;
- (2) Accident records
- (3) Traffic/roadside conditions not readily apparent to the driver.

These roadway characteristics are then used to help determine an appropriate speed limit. In addition, the Manual on Uniform Traffic Control Devices (2003 MUTCD) states that speed limits should be established at the nearest 5mph increment to the 85th percentile speed (unless engineering judgment recommends otherwise based on specific roadway characteristics) which is defined as that speed at or below which 85 percent of the traffic is moving. Speed limits established on this basis conform to the consensus of those who drive the street as to what speed is reasonable and safe, and are not dependent on the judgment of one or a few individuals. Speed limits higher than the 85th percentile speed are not generally considered reasonable and safe while speed limits below the 85th percentile typically do not facilitate the orderly movement of traffic. Only when roadside development results in traffic conflicts or unusual conditions not readily apparent to drivers may speed limits be further reduced.

Physical Conditions:

The following table describes the existing conditions of different segments along Hidden Vista Drive:

| | |
|---|---|
| Segment Limits | East H Street to Smoky Circle |
| Length/Width | 1,267 feet (0.24Mile)/ varies from 42' to 68' curb to curb |
| Classification | Class III collector |
| ADT (Year) | 5,565 (2005) |
| Exist. Speed Limit | 25 mph |
| 85th% Speed | 36 mph |
| Number of Lanes | 3 lanes (2 southbound and 1 northbound), 4 lanes (2 in each direction) approaching East H Street intersection |
| Striping | 3 to 4 lanes, stop signs, and speed limit legends |
| On-Street Parking | Not allowed |
| Land Use | Residential –no direct driveway access. |
| Horizontal Alignment | A horizontal curve located 260' east of Windjammer Circle with a minimum radius of 1800' over 899' along the centerline. |
| Vertical Alignment | A crest vertical curve located 60' south of Sanibelle Circle and Hidden Vista Drive, with a +11.0% to 6% change in grade produces a design speed of 30 mph. |
| Accident Rate: Segment / State | The accident rate along this segment is 0.00 (accidents per million vehicle miles) which is lower than the rate of 1.63 for similar roadways in the State of California |
| Special Conditions | Dense landscaping on both sides of the roadway. There are no properties fronting this segment of Hidden Vista Drive. |

| | |
|-------------------------------|--|
| Segment Limits | Smoky Circle to Terra Nova Drive |
| Length/Width | 1,856 feet (0.35 Mile)/ 42' curb to curb |
| Classification | Class III Collector |
| ADT (Year) | 5,565 (2005) |
| Exist. Speed Limit | 25 mph |
| 85th% Speed | 29mph |
| Number of Lanes | 2 lanes (1 per direction) |
| Striping | 2 lanes, stop signs |
| On-Street Parking | Generally allowed with restriction in front of 435 and 457 Hidden Vista Drive |
| Land Use | Residential (with direct driveway access), public park and school |
| Horizontal Alignment | Horizontal curve located 90' east of Windrose Way with a minimum radius of 350' over 117.23' along the centerline produces a design speed of 25 mph. |

| | |
|---------------------------------------|---|
| Vertical Alignment | A crest vertical curve located between Smoky Circle and Windrose Way, with a +6.0% to +3.8% grade change over 40' along the centerline produces a design speed of 42 mph. |
| Accident Rate: Segment / State | The accident rate along this segment is 0.47 (accidents per million vehicle miles) which is lower than the rate of 1.95 for similar roadways in the State of California. |
| Special Conditions | There is a school and a park along this segment. Most of the residential units along this segment are fronting Hidden Vista Drive. |

Hidden Vista Drive – East H Street to Smoky Circle

As described by the California Vehicle Code, the primary factor in setting speed limits is the prevailing speeds measured along the roadway. Although the 36 mph 85% speed measured along Hidden Vista Drive north of East H Street suggests that the majority of motorists traveling through the area feel it is safe to travel at a speed higher than currently allowed by the existing posted speed limit, the roadway characteristics do not support such speed for the following reasons:

- 1) **Vertical Alignment:** A crest vertical curve located 60' south of the intersection of Sanibelle Circle and Hidden Vista Drive with a grade change of 11.0% to 6% over 120' along the centerline produce a design speed of 30 mph in accordance to CalTrans Highway Design Manual.
- 2) **Roadway Characteristics:** There are four access points (two private, two public) which intersect this 1,267' segment of Hidden Vista Drive that serve as main access points to four different residential communities. A 30 mph speed limit along Hidden Vista Drive would provide a reasonable speed limit that considers adjacent land uses, the steep roadway grade, and the transition to the further reduced design speed of 25mph section of this road north of this segment.

Based on the vertical alignment and design speed of 30mph, staff recommends a 30mph posted speed limit.

Hidden Vista Drive – Smoky Circle to Terra Nova Drive

While conducting the speed survey, staff measured a 29 mph 85% speed along Hidden Vista Drive between Smoky Circle and Terra Nova Drive which suggests that the majority of motorists traveling through the area feel it is safe to travel at a speed higher than currently allowed by the existing posted speed limit. However this residential neighborhood generates a significant number of pedestrians. Therefore, staff recommends the segment of Hidden Vista Drive from Smoky Circle to Terra Nova Drive retain the 25 mph speed limit for the following reasons:

- 1) **Terra Nova Park.** Terra Nova Park is an 8.25 acre neighborhood park that serves the surrounding area. It is located at the northwest corner of the intersection of Hidden Vista Drive and Parkside Drive. The park has a playground, two tennis courts,

restrooms and a large playing field. With so many amenities, this park attracts a significant number of pedestrians and motorists from the surrounding communities.

- 2) **Clear View Elementary School:** Clear View Elementary School is a public school with 538 students and 26 faculties. The school is located at the northeast corner of Windrose Way and Hidden Vista Drive. As is the case with all elementary schools, Clear View Elementary generates a significant amount of pedestrian activities within the area. The kindergarten classes dismiss at 2:00 p.m., all other classes dismiss at 3:07 p.m. There is a pedestrian walkway between the school and the park that exits onto Hidden Vista Drive and is heavily used by students. During school dismissal many parents park their vehicles on both sides of Hidden Vista Drive near the walkway, and wait to pick up their kids. Staff visited the site on April 29, 2008, during school dismissal from 2:30 p.m. to 3:30 p.m., and observed 35 pedestrians that crossed Hidden Vista Drive at this location. Although the location does not include a crosswalk, vehicles were traveling at an appropriately slow speed, most likely due to the proximity of stop signs and the existing 25mph speed limit, and allowed pedestrians to cross Hidden Vista Drive safely. In addition, staff observed 29 pedestrians that crossed Hidden Vista Drive at its intersection with Woodhouse Avenue. This intersection is controlled by stop signs in all directions, includes yellow crosswalks across both streets, and as such, provides the best location for pedestrians to cross Hidden Vista Drive.
- 3) **Residential Street:** Hidden Vista Drive provides direct access to 25 residential homes fronting the street within the 0.35 mile segment north of Smoky Circle. Taking into consideration the residential nature of this segment, staff feels a 25 mph speed limit is appropriate.
- 4) **Horizontal Alignment:** This segment of Hidden Vista Drive has a horizontal curve located 90' east of Windrose Way with a minimum radius of 350' over 117.23' along the centerline that produces a design speed of 25 mph in accordance to CalTrans Highway Design Manual.

Based on the above, staff recommends a 25 mph speed limit from Smoky Circle to Terra Nova Drive

CONCLUSION:

Should the Safety Commission, and ultimately City Council, establish the proposed 30mph speed limit, Schedule X of the register maintained in the office of the City Engineer would be revised to show the following:

| 10.48.020 Schedule X – Established Speed Limits in Certain Zones – Designated | | | |
|---|---------------|------------------|----------------------|
| Name of Street | Beginning At | Ending At | Proposed Speed Limit |
| Hidden Vista Drive | East H Street | Smoky Circle | 30 mph |
| Hidden Vista Drive | Smoky Circle | Terra Nova Drive | 25 mph |

FISCAL IMPACT:

The proposed speed limit modification would require the posting of 2 new speed limit signs as well as the removal and replacement of 2 of pavement legends. The cost to install these improvements is approximately \$602.08.

Existing Capital Improvement Project TF-332, “Signing and Striping Program,” would fund these proposed expenses. As of April 4, 2008, this CIP account had a balance of \$78,517. However, on March 13, 2008, the Safety Commission authorized some improvements to be installed along Hunte Parkway (estimated cost \$2,185.00) and Marina Parkway (estimated cost \$2000.00). Therefore the remaining fund in the Capital Improvement Project TF-332 after these improvements are completed will be approximately \$74,332.00

Attachments: Speed Survey
 Location Plat

J:\Engineer\TRAFFIC\SAFETY COMMISSION\2008\2008-04\HIDDEN VISTA DRIVE\Speed Limit Hidden Vista Dr Agenda.doc